

16. (New) The method according to Claim 15, wherein the cooling of the melamine melt to the temperature which is from about 1 to 50 °C above the melting point of the melamine is effected by passing in cold liquid or gaseous ammonia.

17. (New) The method according to Claim 15, wherein the melamine obtained and present as a suspension is dissolved by feeding in an aqueous ammoniacal solution, the solution is optionally mixed with NaOH and, optionally, allowed to dwell, the dissolved ammonia is, optionally, stripped, filtration is then effected and the melamine is crystallized and isolated.

18. (New) The method according to Claim 15, wherein the melamine melt is quenched by means of recycled mother liquor obtained in the crystallization.

19. (New) The method according to Claim 15, wherein the melamine melt is cooled to a temperature which is from about 1 to 50 °C above the melting point of the melamine, at an ammonia pressure of from about 50 to 1000 bar while feeding in ammonia.

20. (New) The method according to Claim 15, wherein the melamine melt is cooled to a temperature which is from about 1 to 30 °C above the melting point of the melamine.

21. (New) The method according to Claim 15, wherein the melamine melt is cooled to a temperature which is from about 1 to 50 °C above the melting point of the melamine, by passing in ammonia for from about 1 minute to 10 hours.

22. (New) The method according to Claim 15, wherein quenching is effected at a temperature of from about 25 °C to 300 °C, and a pressure of from about 1 to 100 bar.

23. (New) The method according to Claim 15, wherein the melamine and urea are washed out of the off-gases of the melamine reactor by means of a urea melt which

simultaneously heats up, and the urea melt is then fed to the melamine synthesis in a melamine reactor and the off-gases are fed to a urea reactor.

24. (New) The method according to Claim 23, wherein the off-gases freed from melamine and urea are condensed, optionally with the aid of ammonium carbonate solution and/or ammonium carbamate solution which are taken off from a urea plant or the melamine plant, and the resulting heat is used for preheating the liquid ammonia used in the urea plant or for the production of steam.

25. (New) The method according to Claim 17, wherein the aqueous ammoniacal solution is a recycled mother liquor obtained in the crystallization.

26. (New) The method according to Claim 22, wherein the quenching temperature is from about 50 °C to 200 °C and the pressure is from about 1 to 50 bar.